

## Quality Improvement in Healthcare - Towards to Integrated Care Models in EU

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*Quality improvement in healthcare consists of systematic and continuous actions that lead to a measurable improvement in healthcare services. Most important goals for improvement in healthcare are safe, effective, patient-centres, timely, efficient, equitable healthcare. Definition of the integrated care includes initiatives seeking to improve outcomes of care by overcoming issues of fragmentation through co-ordination of services of providers along the continuum of care. Different countries of EU Member States are at different stages in the development of integrated care systems. Most countries reported continuously working on several initiatives to strengthen integration and coordination of care, such as pilot projects, implemented targeted programmes and strategies and adopted methods for cooperation. Many countries have taken initiatives on legislation, reorganisation and reimbursement systems. Integrated care can be seen to be both, a design of healthcare and a framework to achieve person-centred, efficient and safe care. Only a small number of EU Member States have developed specific indicator sets to assess integrated care. Measuring the performance of integrated care has to take into account the objectives of a health system and also needs to reflect the complexity of integrated care systems.*

**Key words:** *quality, healthcare, integrated care*

### 1. INTRODUCTION

#### 1.1. *Quality improvement in healthcare in the last decade*

Quality improvement in healthcare consists of systematic and continuous actions that lead to a measurable improvement in healthcare services. Most important goals for improvement in healthcare are safe, effective, patient-centres, timely, efficient, and equitable healthcare [1]. In the last decade, improving healthcare quality is a matter for the interest of quality managers, clinicians, health care managers, scientists, and policy makers. Spencer and Walshe conducted the survey of quality improvement policies and strategies in healthcare systems of the European Union and concluded that there were international variations in the development of healthcare quality improvement. Some key regional differences were reported in: approaches to

measuring and evaluating quality; priorities across regions and between national and regional levels; national policies and implementation at regional level; organisation and implementation of quality indicators; access to resources for quality indicators; professional motivation, training and competence [2]. Legal requirements are an important driver along with the activities of national governments and professional associations and societies.

Patient organisations have less influence than legal requirements on quality improvement in healthcare, such as policies and initiatives of the European Commission, and the activities of International Society for Quality in Health Care –ISQua. The most frequently achievements in Quality improvements in the EU member states were: establishing national accreditation or quality assurance systems; establishing a national society for quality in healthcare; extending patient choice, patient rights and patient safety; improving the training and assessment of professionals.

The growth of patient mobility across borders in European Union member states required policies for cooperation (Spencer, 2008). The European directive 2011/24/EU on the application of patients' rights in cross-border healthcare provides rules for facilitating

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the access to safe and high-quality cross-border healthcare and promotes cooperation on healthcare between Member States. However, the Member State of affiliation may choose to limit the reimbursement of cross-border healthcare for reasons relating to the quality and safety of the healthcare provided, where this can be justified by overriding reasons of general interest relating to public health [3].

### 1.2. *Integrated health care*

The healthcare sector is highly fragmented, organized along different sectors, disciplines and diseases [4]. Demographic changes as the aging population have resulted in people living longer but also growing prevalence of chronic long standing illnesses [5]. There are rising number of people with complex care needs require the development of care systems that bring together a range of professionals and skills from the healthcare, long term and social care sectors [6].

Integrated health care have been promoted to improve access, quality and continuity of services, especially for people with complex needs and multiple morbidities [5]. Identification of the underlying values of integrated care enables better and deeper understanding of collaboration and behaviour in integrated care, and could also help to define quality in integrated care [7].

Integrated care is a concept accepted across the world, but sometimes is not quite clear what does it exactly mean. The integrated care has been provided with many different definitions depending on different stakeholders within the care systems. The definition can be driven by different point of view (eg. health system based; managers', social science based or definition based on the perspective of the patient). A health system-based definition is „Integrated health services: health services that are managed and delivered so that people receive a continuum of health promotion, disease prevention, diagnosis, treatment, disease-management, rehabilitation and palliative care services, coordinated across the different levels and sites of care within and beyond the health sector, and according to their needs throughout the life course“ [8]. Definition of the integrated care includes initiatives seeking to improve outcomes of care by overcoming issues of fragmentation through co-ordination of services of providers along the continuum of care [6].

Aim of this paper is to assess similarities and differences of state of integrated care in EU countries: initiatives, actions, quality indicators.

## 2. METHODS AND DATA COLLECTION

Literature review and research started in the electronic databases Medline/PubMed, Google Scholar and official site of the European Commission using the

search terms „quality improvement“, „integrated care“, „quality indicator in healthcare“. In this study we reviewed the journal articles, the books, the EU official documents, and the reports by the Expert Group on Health Systems Performance Assessment. Empirical, theoretical and conceptual articles, written in English, were included in the search strategy.

## 3. RESULTS AND DISCUSSION

Different countries are at different stages in the development of integrated care systems.

Integrated care includes initiatives seeking to improve outcomes of care by overcoming issues of fragmentation through co-ordination of services or linkage of providers along the continuum of care [6]. Before setting in place an assessment system it is important to explicitly define and agree on the goal of integrated care in a specific context. Integrated care models can be introduced with different goals: increasing effectiveness of the system, reducing costs, improving patient safety, etc [6].

The transformation of healthcare sector towards integrated care could be conceptualised as an organisational learning experience. This change requires collaborative learning between different disciplinary teams and different care levels, and often between different healthcare organisations. It is important to know how this change influenced to the professional cultures and identities and cultures of the organisations. Cooperation between organisations includes best practice sharing, design of learning environments, interorganisational collaboratives, different types of training activities, etc. [9].

Expert group on Health Systems Performance Assessment reported that national or regional initiatives addressing integration of care differed from country to country (Table 1). Only a small number of EU Member States have so far developed specific indicator sets (Table 2.) to assess integrated care or that could be used for this purpose [6]. This approach reflects international experience, with only a few other countries and the World Health Organization's 2015 global strategy on people-centred and integrated health services releasing documented frameworks and indicator sets [10].

Most countries reported continuously working on several initiatives in parallel to strengthen integration and coordination of care. Many of them have taken initiatives on legislation, reorganisation and reimbursement systems. Some countries reported that they started with pilot projects, implementation of targeted programmes and strategies and they adopted methods for cooperation (Table 1). Austria, Malta and Luxembourg have initiatives to strengthen primary care to

coordination of hospital services and care. Finland has a health and social reform and framework for strengthen the integration of care. Netherland develop new health care standards for specific chronic diseases. Germany and France implemented specific disease programmes.

Belgium has developed programmes for holistic care of patients. In Australia is developed Gold Coast

Integrated Care Model as a prospective management of high risk patients in close collaboration with GPs with the health service emergency department, improving the capacity of specialist outpatients and decreasing of admission rates [11].

All countries agreed to be consensus that any model should be flexible and adaptable to different national or local contexts, where applicable.

Table 1. Initiatives in EU countries addressing integration of care [6].

EU country	Initiatives	Actions
Austria	Strengthen primary care	To enhance the integration and coordination of care
Malta	1. Strengthen polyclinics in the public primary health care system 2. Diabetes shared-care programme	1. To interface directly with hospital services 2. The programme involves training general practitioners and delivering diabetes clinics in line with a shared care protocol developed with the diabetes department of a hospital.
Belgium	Conventions" (agreement) for functional rehabilitation	To finance the holistic care of patients with chronic diseases that has an impact on their psychological health, social or work (or school) functioning
France	Regional intervention fund that made possible the gathering of financing from different sources	A pilot bundled-payment project for chronic kidney disease
Finland	A health and social care legislative reform	A framework for initiatives to strengthen the integration of care.
Germany	Implemented disease management programmes	Structured care programmes for chronically ill persons.
Luxembourg	Introduced a "médecin référent", a primary care doctor	Doctor whose role is to coordinate care for their patients.
Netherland	The development of new health care standards, and the programme of national care for elderly.	The health care standards are developed on diabetes, dementia, obesity, COPD Implementing bundled payment models for chronic diseases (e.g. diabetes, COPD) and for pregnancy and childbirth
Portugal	implemented a national hotline supported by nurses	To improve outcomes of care

Table 2. Indicator sets dedicated to the assessment of integrated care in EU countries [6].

Country	Developed indicator sets
United Kingdom	small set of national metrics for measuring progress in health and social care integration efforts
Italy	specific set of indicators to explicitly measure aspects of integrated care, but these are currently not measured at the national level
Austria Belgium Spain Sweden	pointed to the existence of indicator sets that were not specifically developed for assessing the performance of integrated care as such but may be used for this purpose
Netherlands	experiences with assessing integrated care are gathered in relation to selected dimensions within regional-level pioneer sites
Spain	data collected within the National Health Barometer can be used for the assessment of aspects of integrated and coordinated care
Estonia	assessment of the state of health system integration identified a set of eight indicators – for measure appropriate care setting, coordination and continuity of care for a set of acute and chronic conditions, where applicable.

Quality indicator sets are different from country to country. It is hard to compare the state of the integrated care between countries with the quality indicators.

The number of principles and factors which the stakeholder community in the domain of integrated care were recognisee as a most important: political support and commitment, governance, stakeholder engagement, organisational change, leadership, collaboration and trust, workforce education and training, patient focus / empowerment, financing and incentives, ICT infrastructure and solutions, and monitoring / evaluation system [6]. Intergration of health and social care is developpe from long standing cocerns about care fragmentation and colaboration in health and social care [12].

Health economists are increasingly interested in integrated care in relation of decision making and cost effeptive solutions for thret chronic diseases. However, economic evaluation in integrated care is still at the begining. Intergrated care defined as complex intervention [13, 4]. It is still often proposed as future direction for the development of helathcare systems in many countries [7].

It is important to point the integrated care is not a goal in itself; it is a tool when it addresses complex care needs of people that require a systemic approach involving professionals and skills from the healthcare, long-term and social care sectors. The complexity of this intervencion is a challenge for policy makers, health economists and healthcare provider.

#### REFERENCES

- [1] Hughes R. G, Patient Safety and Quality: An Evidence-Based Handbook for Nurses. Rockville: Agency for Healthcare Research and Quality (US), 2008.
- [2] Spencer E, Walshe K, National quality improvement policies and strategies in European Healthcare systems. Qual Saf Health Care 2009; 18(Suppl 1):i22–i27. doi:10.1136/qshc.2008.029355, 2009.
- [3] Directive 2011/24/EU of the European Parliament on the application of patients' rights in cross-border healthcare provides rules. OJ L 88, 4.4.2011, p. 45–65 from: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32011L0024>
- [4] COST Action. European Network on cost containment and quality in healthcare. MoU, 2017.
- [5] Valentjn P, at all, Understanding integrated care: a comprehensive conceptual framework based on the integrative functions of primary care. International Journal of Integrated Care. URN:NBN:NL:UI:10-1-114415, 2013.
- [6] European Commission, Tools and methodologies to assess integrated care in europe. Report by the expert group on health systems performance assessment. Luxembourg: Publications Office of the European Union, 2017
- [7] Zonneveld, N, et al, Values of Integrated Care: A Systematic Review. International Journal of Integrated Care, 18(4): 9, 1–12. DOI: <https://doi.org/10.5334/ijic.4172>, 2018
- [8] Goodwin N, Understanding Integrated Care. International Journal of Integrated Care, 16(4): 6, pp. 1–4, DOI: <http://dx.doi.org/10.5334/ijic.2530>, 2016.
- [9] Nuno-Solis R, Revisiting Organisational Learning in Integrated Care, International Journal International Journal of Integrated Care, 17(4): 4, pp. 1–6, DOI: <https://doi.org/10.5334/ijic.3047>, 2017.
- [10] World Health Organisation. (2013). “European Observatory on Health Systems and Policies: Health systems in transition.” 2015, from [www.euro.who.int/who-we-are/partners/observatory/health-systems-in-transition-hit-series](http://www.euro.who.int/who-we-are/partners/observatory/health-systems-in-transition-hit-series).
- [11] Connor, M et al, The Gold Coast Integrated Care Model. International Journal of Integrated Care, 16(3): 2, pp. 1–8, DOI: <http://dx.doi.org/10.5334/ijic.2233>, 2016.
- [12] Kaehne A, The Building Blocks of Integrated Care. International Journal of Integrated Care, 16(4): 5, pp. 1–2, DOI: <http://dx.doi.org/10.5334/ijic.2527>, 2016.
- [13] Tsiachristas A, et al, Performing Economic Evaluation of Integrated Care: Highway to Hell or Stairway to Heaven? International Journal of Integrated Care, 16(4): 3, pp. 1–12, DOI: <http://dx.doi.org/10.5334/ijic.2472>, 2016.

## REZIME

### UNAPREĐENJE KVALITETA U ZDRAVSTVU - KA INTEGRISANIM MODELIMA ZDRAVSTVENE ZAŠTITE U EU

*Unapređenje kvaliteta u zdravstvu sastoji se od sistematskih i kontinuiranih aktivnosti, koje vode do merljivog poboljšanja zdravstvenih usluga. Najvažniji ciljevi za poboljšanje zdravstvene zaštite su sigurna, efikasna, usmerena ka pacijentu, pravovremena, pravična zdravstvena zaštita. Definicija integrisane zdravstvene zaštite uključuje inicijative koje nastoje da poboljšaju zdravstvene ishode, tako što će se prevazići problemi fragmentacije kroz koordinaciju usluga pružalaca usluga tokom pružanja zdravstvene zaštite. Različite zemlje članice Evropske unije nalaze se u različitim fazama razvoja integrisanih sistema zdravstvene zaštite. Većina zemalja ima usvojen koncept kontinuiranog rada na nekoliko inicijativa za jačanje integracije i koordinacije zdravstvene zaštite, kao što su pilot projekti, implementirani ciljani programi i strategije i usvojene metode za saradnju. Mnoge zemlje su preduzele inicijative u izmeni legislativne kao i reorganizacije politika refundacije troškova zdravstvene zaštite. Integrisana zdravstvena zaštita se može smatrati i dizajnom zdravstvenog sistema i okvira za postizanje efikasne, sigurne zdravstvene zaštite, usmerene ka pojedincu. Samo mali broj zemalja članica EU je razvio specifične indikatore za procenu integrisane zdravstvene zaštite. Merenje performansi integrisane zdravstvene zaštite mora da obuhvati ciljeve zdravstvenog sistema, a takođe treba da odražava složenost integrisanih sistema zdravstvene zaštite.*

**Ključne reči:** kvalitet, zdravstvo, integrisana zdravstvena zaštita